Amendments to the Claims

Please cancel Claims 1-18. Please amend Claims 19, 24, 29 and 30. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1-18. (Canceled)

19. (Currently amended) A method of identifying T cells in a sample that become activated in the presence of a vaccinia or variola virus that comprises a polypeptide having an amino acid sequence that is identical or substantially homologous to peptide 165 (SEQ ID NO: 2), comprising contacting the T cells with a polypeptide selected from the group consisting of:

~~peptide 74A (SEQ ID NO: 1),~~ a) peptide 165 (SEQ ID NO: 2),

b) an immunogenic mutant or fragment ~~thereof~~ of SEQ ID NO: 2, wherein the immunogenic mutant or fragment maintains the function of peptide 165 as a CD8 T cell epitope of the vaccinia or variola virus, and

c) a combination thereof,

wherein activation of the T cells by the polypeptide indicates that the T cells become activated in the presence of the vaccinia or variola virus.

20. (Original) The method of Claim 19 wherein whether the T cells present in the sample become activated is determined using an assay selected from the group consisting of: a cytokine assay, a flow cytometry assay and a limiting dilution assay.

21. (Previously presented) The method of Claim 20 wherein the cytokine assay is an ELISPOT assay and the flow cytometry assay is a tetramer staining assay.

22. (Original) The method of Claim 19 wherein the sample is selected from the group consisting of: blood, lymph and tissue.

23. (Original) The method of Claim 22 wherein the sample is a peripheral blood mononuclear cell sample.

24. (Currently amended) A method of determining whether an individual has been infected with a vaccinia or variola virus that comprises a polypeptide having an amino acid sequence that is identical or substantially homologous to peptide 165 (SEQ ID NO: 2), comprising determining whether the individual's T cells become activated in the presence of a polypeptide selected from the group consisting of: ~~peptide 74a (seq id no: 1),~~ peptide 165 (SEQ ID NO: 2), an immunogenic mutant or fragment ~~thereof~~ of SEQ ID NO: 2, wherein the immunogenic mutant or fragment maintains the function of peptide 165 as a CD8 T cell epitope of the vaccinia or variola virus, and a combination thereof, ~~and~~ wherein if the individual's T cells become activated in the presence of the peptide, then the individual has been infected with the vaccinia or variola virus.

25. (Original) The method of Claim 24 wherein the individual's T cells are present in a sample, and the sample is selected from the group consisting of: blood, lymph and tissue.

26. (Original) The method of Claim 25 wherein the sample is a peripheral blood mononuclear cell sample.

27. (Original) The method of Claim 24 wherein whether the whether the individual's T cells become activated is determined using an assay selected from the group consisting of: a cytokine assay, a flow cytometry assay and a limiting dilution assay.

28. (Previously presented) The method of Claim 27 wherein the cytokine assay is an ELISPOT assay and the flow cytometry assay is a tetramer staining assay.

29. (Currently amended) A method of monitoring the effectiveness of a vaccinia vaccine that comprises a polypeptide having an amino acid sequence that is identical or substantially homologous to peptide 165 (SEQ ID NO: 2) in an individual who has been administered

the vaccinia vaccine, comprising determining whether the individual's T cells become activated in the presence of a polypeptide selected from the group consisting of: ~~peptide 74A (SEQ ID NO: 1),~~ peptide 165 (SEQ ID NO: 2), an immunogenic mutant or fragment ~~thereof~~ of SEQ ID NO: 2, wherein the immunogenic mutant or fragment maintains the function of peptide 165 as a CD8 T cell epitope of the vaccinia or variola virus, and a combination thereof, wherein if the individual's T cells become activated, then the vaccinia ~~virus~~ vaccine is effective in the individual.

30. (Currently amended) The method of Claim 29 wherein the individual's T cells ~~of the individual~~ are present in a sample, and the sample is selected from the group consisting of: blood, lymph and tissue.

31. (Original) The method of Claim 30 wherein the sample is a peripheral blood mononuclear cell sample.

32. (Original) The method of Claim 29 wherein whether the whether the individual's T cells become activated is determined using an assay selected from the group consisting of: a cytokine assay, a flow cytometry assay and a limiting dilution assay.

33. (Previously presented) The method of Claim 32 wherein the cytokine assay is an ELISPOT assay and the flow cytometry assay is a tetramer staining assay.

34. (Original) The method of Claim 29 wherein the vaccinia vaccine is a cancer vaccine.